

engaging movement of the sleeve from a neutral position by a shift force F_o . First and second friction surfaces are respectively fixed to the second and third drives and are engagable respectively with first and second friction rings axially disposed on opposite sides of the hub for producing a synchronizing torque when engaged. First and second blocker surfaces are operative when engaged respectively by third and fourth blocker surfaces to prevent engagement of the first and second jaw teeth respectively with the third and fourth jaw teeth prior to the synchronizing. Pre-energizing means are for engaging the first and second friction rings respectively with the first and second friction surfaces with an initial engaging force in response to initial to-or-fro engaging movement of the sleeve by the shift force (F_o) from the neutral position and for engaging the blocker surfaces in response to the synchronizing torque. First and second self-energizing surfaces fixed to the hub and separated by first non-self-energizing surfaces. Third and fourth self-energizing surfaces separated by second non-self-energizing surfaces. The first and second self-energizing surfaces are operative to react the synchronizing torque when engaged respectively with the third and fourth self-energizing surfaces for producing an additive axial force (F_a) in the direction of the shift force (F_o) and for increasing the engagement force of the first and second friction rings. The first and second non-self-energizing surfaces are operative when engaged to prevent engagement of the self-energizing surfaces. A member is mounted on the sleeve for non-radial and limited rotational movement relative thereto and having the third and fourth blocker surfaces and the third and fourth self-energizing surfaces fixed thereto and circumferentially interposed between the first and second blocker surfaces and the first and second self-energizing surfaces. The pre-energizing means includes first and second ramps biased by resilient means to a position between axially spaced apart third and fourth ramps fixed to the member and ramps are respectively engagable in response to the initial to-or-fro engaging movement. And detent means resiliently reacting between the hub and sleeve for positioning the sleeve in the neutral position and the non-self-energizing surfaces for engagement the detent means including a recess affixed against movement relative to the shift sleeve.